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FAA-01-11133-2167

The Leader In Recreational Aviation

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May 6, 2002

Docket Management System, US DOT
Room Plaza 401
400 Seventh St. SW
Washington D.C. 20590-0001

RE: Comments to Docket No. FAA-2001-11133; Notice No. 02-03

Dear Sirs:

EAA (Experimental Aircraft Association) is the world leader in recreational aviation. With an international membership of 170,000, EAA brings together aviation enthusiasts, pilots and aircraft owners who are dedicated to the continued growth of aviation, the preservation of its history and a commitment to aviation's future. EAA programs, activities and events are known throughout the world for supporting aviation safety and promoting personal enjoyment and responsibility within an aviation lifestyle.

GENERAL COMMENTS

The sport pilot / light-sport aircraft proposal is one of the most significant rulemaking proposals FAA has developed for the benefit of aviation in the last half century. It will offer a dramatic opportunity for individuals who have always wanted to fly for fun, but found the process too expensive, too time consuming or too complicated. It will make aviation safer by making pilot training more accessible and aircraft ownership more affordable.

The regulatory and commerce environment these rules will create will have a positive impact on the entire aviation community, both in the private sector and government. Some will see these changes as simply a "coming of age" for the ultralight community as more sophisticated aircraft have developed from this movement. Others will see this as a "renaissance" in pilot licensing which harkens back to the 1930s and 1940s when simpler pilot training and proficiency requirements equaled the simplicity of flying then (and the simplicity of many forms of recreational flying today). Still others will see this as a new growth area of "airborne sports opportunities" that will be accessible to the public as are other leisure activities within the American economy and society.

The opportunities created by the "sport pilot / light-sport aircraft" proposals are all of these things. These opportunities should, if supported by the regulations, the manufacturing and service industry, and the pilot and flight instructor communities, equate to an opportunity for more flight activity and aircraft ownership -- "a good thing"

for all of aviation. A separate, but important, element is that these regulatory changes should improve public confidence in the government oversight of recreational flying.

An important benefit of these proposals is the continuation of ultralight flying under FAA Part 103. This will continue the privileges of flight for those wishing to operate within the limitations and voluntary training and registration systems of Part 103. EAA strongly endorses this continued ultralight flight opportunity.

Aviation is at a supply and demand crossroads. Many industry experts indicate a concern about unacceptably low levels of student starts, availability of flight instructors, and availability of aviation maintenance technicians. With more people expected to enter, remain in, or return to an involvement in flying under this proposal, all of these declining factors can be reversed. Lower entry barriers and a higher level of enjoyment could reverse the long-standing high dropout rate of student pilots. Some will make "sport pilot" their destination, whether they are new to flying or returning to flying after many years. Others will join the ranks of private and commercial aviators through a more affordable entry point, and move on to provide additional "supply" to the aviation industry's dwindling human resources.

A major problem in flight training is the "drop-out" factor; a situation that sees many people complete a few hours of training, perhaps even through solo flight, then lose interest. EAA has long believed that a need exists to uncover why such high drop-out rates occur. One common perception by student pilots is that the growing complexity of private pilot training does not meet the type of flying most of these people want – the simple ability to fly close to home as a recreational pursuit. This is why there has been such impressive growth in the ultralight community in recent years. The proposed Sport Pilot regulations will meet that need for a lower cost and less time-consuming entry point to flight in a variety of aircraft categories, while assuring the necessary training to maintain safety.

The "feeder system" for new pilots, which through the decades has depended on those receiving their flight training in the military or as a result of the GI Bill privileges, long ago stopped bringing new pilots into the general aviation industry. "Lower barriers to entry" to the world of flight can be and should be an important element of refreshing the U.S. pilot population ranks. The sport pilot certificate will follow the FAA's overall format that applies to all pilot certificates (with eligibility, training, and experience requirements), but it will be easier to earn than the recreational or private pilot certificate. An added benefit of the regulatory change will be that flight time logged as a sport pilot will count toward more advanced pilot certificates.

The two newly-created aircraft categories will add significantly to the market-expansion possibilities. The new airworthiness category available for two-seat ultralight trainers, and ultralights that do not meet the FAR Part 103, will provide additional safety to the operation of these aircraft. It will also improve public confidence in the safety of these operations. Additionally, the new special light-sport airworthiness certificate will allow manufacturers to build and sell ready-to-fly light-sport aircraft that can be used for

personal pleasure flying, flight instruction, and/or rental purposes. This will allow growth in the service industries (operation, maintenance and flight instruction) at levels reminiscent of the 1970's when general aviation aircraft production drove the volume of activities.

There are a number of critical components of the existing aviation infrastructure that will require attention, development and/or adjustment for the sport pilot / light-sport aircraft opportunity to reach its full potential. These include: the availability of new light-sport aircraft; training for pilots, instructors, and mechanics; FAA designation of new (sport pilot-specific) pilot examiners and new (light-sport aircraft-specific) designated airworthiness representatives; as well as aircraft financing and insurance for aircraft, pilots, instructors and manufacturers. Also critical to the success of the proposal will be the acceptance and support of the flight training community, airport management, and airport system planners at all levels of government.

The implementation of these proposals will create a financial impact on existing ultralight Part 103 operators and two-place training exemption holders. These individuals, as part of the transition resulting from this proposal, will have certification costs involved with the new regulatory environment. Many of EAA's suggested changes to the proposal are intended to reduce as much as possible the impact on these operators.

Government also needs to be proactive in making sure all elements of the industry support the proposal. As a part of the sport pilot / light-sport aircraft effort, the FAA is exercising leadership in "changing the way government regulates." The proposed requirement for the industry to establish consensus standards for aircraft design, production, quality assurance and continuing airworthiness will challenge both government and the private sector. FAA's commitment to this process is already in motion with the establishment of the ASTM International Subcommittee for Light-Sport Aircraft. Efforts to support the success of the new regulations are being accomplished on a parallel track with the rulemaking process. These efforts include the development of guidance material for the private sector and directives for Agency personnel. All affected disciplines within the Agency including airports and aviation security are being involved.

State and local governments will also be impacted by these changes. Airport system planning and airport standards and funding will eventually need to accommodate the new operational flight activities and volume of traffic. State aviation agencies, public and private airport owner/operators, and local zoning entities will need to consolidate light-sport aircraft operations into the picture of the aviation community.

Also significant to the value of these proposed changes is an increase in public confidence in government oversight of recreational flight activity. Unfortunately, since September 11, the general public – which before that date had an "uninvolved, peaceful tolerance" of general aviation – has a much different view of all flight activities. There appears to be a higher public expectation of government control of aviation – regardless of a lack of demonstrated threat assessment. Government registration of airmen and aircraft that previously were only voluntarily registered with non-government

organizations will add to public and law enforcement confidence. Additionally, the actual expectations of improved safety resulting from new minimum standards for airmen, aircraft design, construction and continued operation should bolster public attitude.

FAA is to be commended on the completeness and justification of the proposed rules. This proposal is one of the most well researched and written in recent memory. EAA congratulates the FAA team that developed this proposal in consolidating input from very diverse operating environments into a comprehensive and responsive proposal.

EAA COMMITMENT OF SUPPORT

Keeping flying affordable for the average citizen has been at the forefront of EAA's principles since it's founding in 1953. EAA activities, programs and services have long been based on the needs of those that undertake flying for fun as an integral part of their lifestyle. EAA has been an active participant throughout the development of the sport pilot / light-sport aircraft proposal. For nearly a decade, our organizational resources have been made available to the FAA in the development of the regulations and all supporting efforts. EAA is actively planning for the continuing support of this exciting new opportunity for recreational flight through the development of activities, programs and services for sport pilots and we stand ready to facilitate the integration of sport pilots and light-sport aircraft into the aviation community.

SECTION-BY-SECTION COMMENTS

FAR Part 1

Revise the definition of a light-sport aircraft to increase the maximum takeoff weight from 1,232 to 1,300 pounds.

Justification: The proposed 1,232 weight is based on current ultralight trainer aircraft that predominately use engines made by only one manufacture, ROTAX. ROTAX engines are lighter than any piston aircraft engines previously produced and were not available to certificated aircraft until the late 1990's. An increase in the permissible gross weight of approximately 68 pounds would help prevent this FAR from creating a competitive advantage for a particular manufacturer of aircraft engines. This change would allow for the use of certificated aircraft engines produced by two other existing aircraft engine manufacturers, Textron Lycoming and Teledyne Continental, thereby increasing competition in the market place for light-sport aircraft engines. Further this change in weight would allow some vintage aircraft that were designed and built with heaver aircraft engines to be operated by sport pilots.

Engine	Dry Weight	Horsepower	TC#
ROTAX 912	125.9 lbs.	81	E00051EN
ROTAX 912S	128.5 lbs	99	E00051EN
Lycoming O-235	approx 250 lbs.	100 to 115	E 223
Continental O-200	190 lbs.	100	E 252
Continental IO-240	246 lbs	125	E 7SO

This change will not adversely affect safety because it will allow the use of proven and existing certificated aircraft engines. Our proposed increase in gross weight will maintain the FAA intent of limiting the proposal to slow, easy-to-operate, aircraft because it makes no change to airspeed limitations of a light-sport aircraft. Additionally, the existing cadre of certificated pilots and mechanics are much more familiar with the maintenance of Lycoming and Continental engines which will help ensure proper care of these engines.

An additional benefit to increasing the gross weight to 1,300 pounds will be to allow most of the existing light-sport aircraft to be safely equipped with amphibious floats without exceeding the gross weight limitation. This would be difficult under the proposed limit of 1232 pounds.

EAA also supports this change to address the strong wishes of vintage aircraft owners whose aircraft fall outside of the proposed gross weight. With a gross weight of 1,300 pounds, some additional vintage aircraft that meet all of the other proposed performance requirements (number of seats, stall speed, etc.) except gross weight would be eligible under these proposals. As pointed out earlier, the higher gross weight of these aircraft is often due to the heavier engines that existed at the time they were designed and built.

Revise the definition of a light-sport aircraft to include repositionable landing gear for all light-sport aircraft as follows:

(11) Fixed landing gear or repositionable landing gear.

Add definition of a repositionable landing gear as follows:
"Repositionable landing gear means a simple, hand-operated, mechanical system that does not have landing gear doors which open and close in connection with the landing gear repositioning. Repositionable landing gear may be not be actuated by electrical, pneumatic, or hydraulic means."

Justification: To allow repositionable landing gear for only one type of light-sport aircraft is discriminatory. If the gear is of simple enough design to be acceptable for amphibious light-sport aircraft, it is of simple enough design for all light-sport aircraft. Because of the speed limitations for light-sport aircraft, it is unlikely that new light sport airplanes will be designed with repositionable gears as there is no benefit for the added cost of such gear. However having a repositionable gear is of significance to not only amphibious aircraft but also to gliders and to at least one model vintage airplane that otherwise meet the definition of a light-sport aircraft. The allowance of repositionable

landing gear for these aircraft will not decrease safety nor increase complexity if our proposed definition of a repositionable gear is adopted.

Revise section (2) of the definition of a light-sport aircraft to remove the V_H limitation.

Justification: This proposed part of the rule is simply unenforceable in the field. The proposed rule would create a situation in which two airplanes could be sitting side-by-side on a ramp with identical outward appearance and engines, however, both could not be flown by a sport pilot because one has a propeller pitched to allow a higher cruise speed. Adding this provision will not enhance safety and puts the Agency in a position of enforcing a rule that is all but unenforceable. The laws of physics will effectively limit the top speed of these aircraft through the proposed stall speed Vso and V_{S1} limitations. No other country (including Australia, Canada, Germany, New Zealand, United Kingdom) that has instituted a similar rule for light-sport aircraft have seen the need for a top speed limitation.

FAR Part 21

Revise 21.186(a) to allow for the certification of gyroplanes as follows:
"(a) Special, light-sport category aircraft airworthiness certificates. The FAA issues a special airworthiness certificate in the light-sport category to operate a light-sport aircraft for sport and recreation, flight training, or rental."

Justification: Permitting gyroplanes to be built to a consensus standard will significantly improve flight safety in this class of light-sport aircraft. By prohibiting gyroplanes from being certificated under a consensus standard, the FAA is restricting gyroplane operators to the use of experimental aircraft which are not permitted for primary training use. Lack of proper flight training is one of the leading factors for accidents in experimental gyroplanes. Therefore, to prohibit these aircraft from certificating to a higher standard runs counter to safety and logic. Not only will this suggested change increase the number of gyroplanes available for flight training, but it will provide for a design and quality standard for all new gyroplanes that will help to improve safety in these areas as well. Existing gyroplane manufacturers are already working with ASTM International to provide design, flight testing, and quality standards for these aircraft. Prohibiting these manufacturers from formally taking advantage of the standards writing process impedes the possibility of a significant safety improvement in the manufacturing and operation of gyroplanes.

Further EAA fully supports the efforts of the Popular Rotorcraft Association in their response to this proposed rule and are very concerned with the FAA Rotorcraft Directorate's continued reluctance to work with industry to develop reasonable solutions for the operation of small gyroplanes.

Revise 21.186(c)(5) to delete the "pilot flight-training manual" from the list of information that will be made available to an interested person.

Justification: This information is general information not normally provided by an aircraft manufacturer, but by the FAA and other third parties. EAA questions whether reference was a mistake and if the FAA simply intended to make another reference to the required pilot operating handbook mentioned earlier in the same sentence.

Revise 21.186(c) and (d) to add the following requirement:
State the maximum take-off weight at which the specific make and model complies with the consensus standard.

Justification: An aircraft may have multiple gross weight limitations listed but it must be clear under which gross weight the aircraft meets the consensus standard requirements. This is important not only for structural strength, but also for performance. This is an important safety requirement, and should be specifically stated in the rule and not simply left to the discretion of a manufacturer to include in a pilot operating handbook.

Revise 21.191(i)(1) to extend the 36 month limit on the use of converted ultralight trainers for an additional 48 months (for a total time of 7 years) if maintained by a repairman with a maintenance rating or higher maintenance certificate as follows:
"(1) Operating a light-sport aircraft for which a person applied for registration no later than [Date 24 months after the effective date of the final rule] and for which FAA issued an experimental airworthiness certificate under this paragraph no later than [Date 36 months after the effective date of the final rule]. Only aircraft that do not meet the provisions of §103.1 of this chapter may receive this certificate. The FAA issues this certificate for the purpose of sport and recreation and flight training. A person may operate an aircraft for compensation or hire with this certificate while conducting initial flight training until [Date 36 months after the effective date of the final rule]. The aircraft may be operated for compensation or hire with this certificate while conducting flight training for an additional period of 48 months until [Date 84 months after the effective date of the final rule] *if all subsequent continuous maintenance is performed by the holder of a repairman certificate (light-sport aircraft) with a maintenance rating, a certificated mechanic with Airframe and Powerplant ratings or an FAA approved repair station.*"

Justification: This change will increase the level of knowledge required of the individual responsible for the maintenance of the aircraft and will help ensure that owners of existing ultralight trainers have a reasonable amount of time in which to amortize the cost of their training aircraft. In addition, this time period will allow new training aircraft to be developed, sold, and subsequently made available on the used market. This is important to many current part-time ultralight instructors since many of the new aircraft are considered out of their price range and many of these instructors would be forced to stop instructing at a time when their skills are most needed in the community. A large

number of these part-time instructors serve remote areas of the country where it will take time for a marketplace to be developed that will support a full-time operation. In these areas, EAA is concerned that a the lack of available training operations using FAR 103 aircraft could lead pilots to self-train, significantly reducing safety as compared to the current situation under the Part 103 training exemption.

FAR Part 45

Revise 45.29 to allow light-sport aircraft with special airworthiness certificates to display 3" numbers by adding a paragraph (v).
"(v) Marks at least 3 inches high may be displayed on an aircraft for which a special light-sport aircraft certificate has been issued under 21.186."

Justification: EAA feels that 3" numbers are justified because:

- Many of these aircraft are currently operating with 3" numbers. Once this rule is in place the same make and model aircraft could have two requirements, 12" numbers for aircraft with a special airworthiness certificate and 3" numbers for those with an experimental certificate.
- These aircraft are only authorized to operate within US territory.
- These aircraft will operate at speeds well below the current 180 knot limit for 3" numbers for experimental aircraft.
- Many of the airplane designs do not provide the surface areas to easily accommodate 12" numbers. For example most of the fixed wing designs currently use a 6 to 8 inch diameter tube as the fuselage surface where numbers have been traditionally displayed and there is insufficient surface area to place 12" numbers on the tail of these aircraft. Picture of typical light sport airplane follows.

FAR Part 61

The proposed rule does not provide for land and sea class ratings under the powered parachute category 61.5. This is necessary to accommodate for existing as well as future powered parachutes. In addition, the proposed changes codify weight shift class ratings under 61.5(b)(5) which currently contains the classifications of aircraft type ratings. No provisions appear to have been made in the proposal for renumbering the existing 61.5(b)(5) type rating section.

Revise *61.5* to add powered parachute "class" ratings of land and sea. Renumber 61.5 to reflect the additions to the paragraph.

Justification: Both land and sea powered parachute aircraft currently exist and are envisioned to be manufactured in the future.

Revise 61.109(i)(1) to allow a current registered ultralight powered parachute pilot who also holds a private pilot certificate to add the powered parachute rating to their private pilot certificate by showing evidence of ultralight training. This would be done by adding a statement to the proposed table as follows:
"The holder of a private pilot or higher certificate may add a powered parachute rating to their certificate without meeting the requirements of this paragraph if the applicant presents to an FAA Flight Standards Office their pilot certificate and a notarized statement from an FAA recognized ultralight training organization stating that the applicant is registered as an ultralight pilot and/or instructor with a powered parachute rating obtained prior to [Date 36 months after the effective date of this rule]."

Justification: The holder of a private pilot certificate has already shown, to the satisfaction of the Administrator, that he or she has met all of the knowledge requirements for the certificate they hold. In addition, this individual has also already shown and received an endorsement from an ultralight instructor that he or she has met the minimum flight proficiency requirements in the category of aircraft for which the rating is being requested.

Revise proposed 61.109(i)(2) to allow a current registered ultralight weight-shift-control pilot who also holds a private pilot certificate to add the weight-shift-control rating to their private pilot certificate by showing evidence of ultralight training. This would be done by adding a statement to the proposed table as follows:
"The holder of a private pilot or higher certificate may add a weight-shift-control rating to their certificate without meeting the requirements of this paragraph if the applicant presents to an FAA Flight Standards Office their pilot certificate and a notarized statement from an FAA recognized ultralight training organization stating that the applicant is registered as an ultralight pilot and/or instructor with a weight-shift-control rating obtained prior to [Date 36 months after the effective date of this rule]."

Justification: The holder of a private pilot certificate has already shown, to the satisfaction of the Administrator, that he or she has meet all of the knowledge requirements for the certificate they hold. In addition this individual has also demonstrated that he or she meets the minimum flight proficiency in the category of aircraft for which the rating is being requested and has received an endorsement from an ultralight instructor.

Suggestion: Remove paragraphs 9(ix) from the proposed 61.107(b) and add a paragraph 61.116 as follows:
"61.116 Powered Parachute Limitations.
"(a) The holder of a private pilot certificate with a powered parachute rating may not exercise the privileges of those certificates at night unless they have obtained training from an authorized instructor in night operations in the respective category of aircraft and have received a logbook endorsement to that effect."

Justification: Current experimental aircraft manufacturers have no plans to produce aircraft equipped for night flight operations. This decision by current manufacturers of powered parachutes would make it very difficult for individuals to obtain a private pilot powered parachute rating. However, these aircraft are sometimes used in airshows at night and there is no way for us to determine what may be developed in the future. The addition of a paragraph 61.116 as proposed would ensure that proper training is completed if at a future date individuals wish to equip an aircraft for night operations.

FAR Part 65

Revise proposed 65.107 (a)(2)(ii) Repairman certificate (light-sport aircraft): Eligibility, privileges and limits to state:
"Complete a 16-hour course acceptable to the FAA on the inspection requirements appropriate to the make and model of light-sport aircraft for which you intend to exercise the privileges of this rating."

Justification: This change would clarify that the developers of acceptable courses may provide a 16 hour course that would be applicable to more than just one make and model. For example, a course for the inspection of a Quicksilver MX Sport should also be acceptable for an MX Sprint, MXL II Sport, Sport 2S, MX II Sprint, a Phantom X1, and Drifter MU582. All of these aircraft have the same basic design features.

Revise proposed 65.107(a)(3)(ii) Repairman certificate (light-sport aircraft): Eligibility, privileges and limits to state:
"Complete a training course acceptable to the FAA on the maintenance requirements of the particular category of light-sport aircraft for which you intend to exercise the privileges of this rating."

Justification: The training required for this certificate is based on the minimum knowledge needed to complete scheduled maintenance and inspections as required by the manufacturer's instructions. Authorization to complete major repairs and changes requires additional training approved by the aircraft manufacturer. The amount of training need to perform these functions varies greatly from category-to-category of light-sport aircraft. For example, 80 hours may be sufficient for conventional fixed-wing aircraft, but would be excessive for a typical powered parachute.

EAA suggests that the FAA work with manufacturers of each category of aircraft to put forward the minimum training tasks and a syllabus for each category of aircraft. This information would then be published in an Advisory Circular which prospective training organizations would use in developing their course for FAA approval.

Revise proposed 65.107(b) to state:
"The holder of a repairman certificate (light-sport aircraft) with an inspection rating may perform a condition inspection on an aircraft owned by the holder with an experimental certificate issued under 21.191(i) of this chapter in accordance with the operating limitations of that aircraft, provided that person has completed the training specified in paragraph (a)(2)(ii) of this section appropriate to the same make and model of light-sport aircraft to be inspected."

Justification: The addition of the statement "in accordance with the operating limitations of that aircraft" conforms this repairman privilege with that of the amateur-built repairman, and clearly notifies the repairman that the standard under which they are to complete a condition inspection is contained in the operating limitations for that aircraft. The revision of the training requirements from that of a specific make and model to training "applicable to" the same make and model will allow for training programs that may cover more than one make and model. Because there may be four or five makes and models of aircraft that have the same features to be inspected, requiring a separate program for each would be overly burdensome. Also there are many cases where a very limited number of a specific models were built and the development and approval of a specific training program would not be practical. At the same time, however, another make and model aircraft with the same basic features/configuration may have a large customer base and one training program could serve the needs of both.

Revise proposed 65.107(c) to state:
"The holder of a repairman certificate (light-sport aircraft) with a maintenance rating may perform maintenance on a light-sport aircraft that has a special airworthiness certificate issued under 21.186 or 21.191(i) of this chapter in accordance with the manufacturers maintenance and repair manuals, provided that person has completed the training specified in paragraph (a)(3)(ii)....."

Justification: The addition of the statement "in accordance with the manufacturers maintenance and repair manuals" conforms this repairman privilege with that of the amateur-built repairman and clearly defines to the repairman that the standard to which they are to complete maintenance and repairs is that set forth by the aircraft manufacturer.

FAR Part 91

Revise 91.109 by adding a paragraph (d) to create a definition of dual controls for a powered parachute to state:
"*91.109(d) In the case of a powered parachute, full dual controls are defined as a configuration that allows, while in flight, for the instructor and student to manipulate, throttle, engine kill switch, and steering lines.*"

Justification: This definition is necessary for this category of aircraft since the controls are completely different from any existing aircraft control system.

Revise proposed paragraph 91.131(b)(2) to:
"(2) Notwithstanding the provisions of paragraph (b)(1)(iii) of this section, no person may take off or land a civil aircraft at those airports listed in section 4 of Appendix D of this part unless the pilot in command holds at least a private pilot certificate, *a recreational pilot certificate and has met the requirements of 61.101(d)*, or a sport pilot certificate and has met the requirements of SFAR 89 section 81."

Justification: The FAA has proposed to add to the privileges of a sport pilot certificate the ability to operate in Class B airspace. Currently, recreational pilots do not have the same privilege. Because the training required for a recreational pilot certificate is greater than that of a sport pilot certificate, we believe that a recreational pilot should also be given the privilege to fly in Class B airspace with appropriate training and endorsement by an instructor.

SFAR No. 89

Revise Section 33(c)(11) recovery from partial canopy collapse as follows:
"Section 33(c)(11) *Simulate recovery from partial canopy collapse (powered parachute only)*"

Justification: This requirement has been misinterpreted to mean that an instructor must actually cause a canopy collapse. EAA believes that this revision, to allow for simulation of a partial canopy collapse, will better define the task to be performed and enhance flight-training safety.

Revise Section 33(c)(12) by removing the requirement to provide flight instruction on a meta-stable stall.

Justification: This is a design and rigging issue not a flight training issue. A properly designed and rigged powered parachute will not experience a meta-stable stall. This requirement is akin to requiring a private pilot to have flight training on the landing of an aircraft without elevator controls. The subject of meta-stable stall avoidance for a sport

pilot is one of ensuring proper rigging of the canopy and would be addressed during the training segments on proper rigging.

Revise SFAR 89 Sections 35(e), 73(b)(9), 83, 121(3)(iv) and 135(e) to delete the restriction of 87 knots.

Justification: There is no apparent reason to limit sport pilot students of light-sport aircraft with a V_H of less than 87 knots. For student safety, the low stall speed is relevant, not the top speed. This provision would require flight schools and FBO's to have two sets of aircraft - one slow and the other faster - to provide for both training and rental. An aircraft purchaser should be allowed to train in the light-sport aircraft they purchase.

Revise Section 55(g) to reduce the minimum flight time requirements to obtain a sport pilot certificate with powered parachute privileges from 20 hours to 10 as follows: "Section 55(g) powered parachute category privileges, *10 hours flight time, including 10 flights in a powered parachute receiving flight training from an authorized instructor and at least 2 hours solo flight training in the areas of operation listed in Section 53 of the SFAR,*

(1) *1 hour cross-country flight training*;
(2) 10 takeoffs and landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;
(3) One solo cross-country flight of at least 25 nautical miles total distance and one segment of the flight....."

Justification: The type and nature of powered parachute operations is closer to that of self-launched gliders than it is to airplanes. Powered parachutes operate at slow speeds generally for shorter periods of time than traditional aircraft and like gliders most often operate in the general area of a landing facility. EAA has evaluated the proposed requirements for a sport pilot certificate and believe that a new student could complete all the required tasks to an acceptable level of proficiency in 10 hours total time. Similarly, the requirement for a private pilot certificate with a glider rating is only 10 hours of operation. EAA is proposing that the requirements for a sport pilot certificate with a powered parachute rating roughly parallel the requirements for a glider certificate. In addition, EAA is aware that the FAA had previously developed a set of standards for a possible recreational pilot certificate with a powered parachute rating. The earlier FAA proposal only called for a total of 10 hours of training. EAA is unaware of any additional requirements that would necessitate 20 hours of training.

Revise Section 55(h) to change the cross-country distance requirements for weight-shift-control pilots to 50 miles as follows:

"Section 55(h)(3) One solo cross-country flight of at least *50* nautical miles distance, with a full stop landing, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between takeoff and landing locations; and ..."

Justification: Weight shift aircraft operate at speeds similar to that of gyroplanes. This revision would align the requirements of the two categories.

Revise Section 65 to change the requirement for make and model endorsements and add a new section addressing "class" ratings, as follows:
"To operate an additional make and model of light-sport aircraft, you must be familiar with the operating limitations, emergency procedures, operating speeds, and weight and balance for the particular make and model. In addition the pilot must perform the following flight operations prior to carrying a passenger, accomplishing a cross-country flight, or operating solo in B or C airspace:

- *Normal take-offs and landings (minimum 3 to a full stop)*
- *Slow flight*
- *Powered and non-powered stalls (as appropriate)*
- *Accumulated a minimum of 1 hour of PIC flight time*
- *Make a logbook endorsement to this fact."*

Justification: As EAA evaluated the proposal to require make and model endorsements from instructors, we recognized that the proposal would be very difficult to implement in the field. Specifically, the difficulty is due to the many single-place aircraft and the large number of limited production makes and models that exists in the light-sport aircraft marketplace. In some areas of the country and with some make and models of aircraft, it will be practically impossible for current operators of these aircraft or subsequent owners to find an instructor proficient in the aircraft to provide a log book endorsement. Building on the premise that the level of government oversight should be proportional to the knowledge of risk of those exposed to the operation, EAA believes that this proposal provides an acceptable and enforceable rule without putting an undue burden on the pilots. This proposal requires that a sport pilot, who has a reasonable knowledge of the risks associated with learning to fly a new aircraft, obtain a minimum level of proficiency in a given make or model aircraft prior to carrying a passenger, who may have less knowledge of the risk, or operating in airspace frequented by air carriers until the pilot has obtained a minimum level of proficiency.

Add a new Section for class ratings:
"To operate an additional class of light-sport aircraft, you must receive a logbook endorsement from the authorized instructor who provided you aircraft-specific training for the additional light-sport aircraft class privileges you seek, certifying you are proficient, in the aircraft in which training was received, for that category and class of light-sport aircraft."

Justification: This revision would accommodate several concerns, such as obtaining an endorsement for single-place aircraft, lack of access to instructors with experience in the many unique makes and models of light-sport aircraft, while ensuring that a reasonable level of oversight is maintained, and ensuring that passengers are not flown until the pilot has met a minimum level of experience.

Revise Section 73(b)(5) to clarify that the answer to this question only applies to sport pilots and that the holder of a private pilot or higher certificate is still authorized to operate a light-sport aircraft used in a passenger-carrying airlift sponsored by a charitable organization. The follow language is proposed:
Change the question for Section 73 to state:
"When exercising the privileges of a Sport Pilot what are my limits for the operation of a light-sport aircraft?"

Justification: The current wording could be interpreted as applying to all pilots. The definition of a light-sport aircraft includes type-certificated aircraft. A reader of the rule could misinterpret the rule as saying that a private pilot or higher credentialed pilot could not use a type-certificated aircraft in a passenger-carrying airlift if that aircraft met the definition of a light-sport aircraft.

Revise Section 75 to also allow a sport pilot instructor to demonstrate an aircraft to a prospective buyer as follows:
"Section 75 May I demonstrate an aircraft in flight to a prospective buyer?
If you are a sport pilot and you are not an aircraft salesperson, you may demonstrate an aircraft in flight to a prospective buyer. *However, if you are an aircraft salesperson, you must hold a sport pilot instructor certificate or at least a private pilot certificate and meet the requirements of 14 CFR 61.113(f)."*

Justification: Current ultralight dealers demonstrate aircraft on a regular basis as ultralight instructors. Since sport pilot instructors are authorized to provide flight instruction for hire in light-sport aircraft it would seem appropriate and consistent with current practices to allow a sport pilot instructor to demonstrate aircraft to a prospective buyer for compensation as they have been doing as an ultralight instructor to date.

Remove Section 83. See comments on Section 35 for justification.

Revise Section 91 to revise paragraph 91(a)(2) and (3) as follows:

"(2) You must *have logged PIC time in the specific make and model aircraft as a private pilot or higher; or*
(3) You must *meet the requirements of Section 65 of this SFAR.* (EAA is referring to our revised Section 65.)"

Justification: This comment aligns this paragraph with our comments for Section 65 and is a reasonable requirement for a private pilot who may currently fly any make and model for which they have a category rating. This system has proven to work as additional training is self imposed by industry through requirements to rent and/or insure aircraft.

Revise Section 93(a)(2) to allow the applicant for a sport pilot certificate to take the knowledge test for either a sport pilot instructor or sport pilot certificate level as follows: "Section 93(a)(2) Pass the knowledge test *for either a sport pilot or sport pilot instructor* and practical test for a sport pilot certificate; and"

Justification: This will allow current ultralight instructors who are transitioning to sport pilot instructor certificates to take only one knowledge test at the higher level saving them time and money and significantly reducing the barriers to transitioning their certificates.

Revise Section 125 to change the requirement that flight instructors must have make and model endorsements from other instructors for each aircraft in which they instruct, and in its place require that instructors be current in the make and model aircraft as follows: "Section 125: Am I authorized to provide training in all categories and classes of light-sport aircraft with my flight instructor certificate with a sport pilot rating?

No, you may provide training only in a category and class of light-sport aircraft for which you have received the proper endorsements. If you hold a flight instructor certificate with a sport pilot rating, you must have a logbook endorsement from an authorized instructor for each additional category and class. *In addition you must be familiar with the operating limitations, emergency procedures, operating speeds, and weight and balance. The instructor must also perform the following flight operations prior to instructing in a new make and model of aircraft:*

- *Normal and short field take-offs and landings (minimum 3 to a full stop)*
- *Slow flight*
- *Powered and non-powered stalls (as appropriate)*
- *Accumulated a minimum of 1 hour of PIC flight time*
- *Make a logbook endorsement to this fact."*

Justification: Because of the many different makes and models of aircraft that meet the light-sport aircraft definition, it is impractical to require flight instructors to have make and model endorsements for every aircraft for which they provide instruction. To become a sport pilot flight instructor the individual must have obtained a substantial amount of flight experience and training that provides a reasonable minimum understanding of light-sport aircraft and how to safely operate them. Further, the requirement that an instructor be current as PIC in all of the required instruction maneuvers in a particular make and model helps ensure that an instructor maintains an appropriate level of proficiency in the aircraft in which he/she instructs.

Revise Section 133 by adding a new paragraph to allow sport pilot instructors to tow light-sport aircraft as follows:

"Section 133 What privileges do I have if I hold a flight instructor certificate with a sport pilot rating?

(a) You are authorized, within the limitations of your flight instructor certificate with a sport pilot rating, to provide training and logbook endorsements for:

(1) A student pilot certificate to operate light-sport aircraft;

(2) A sport pilot certificate;

(3) A sport pilot privilege;

(4) A flight review for a sport pilot;

(5) A practical test for a sport pilot;

(6) A knowledge test for a sport pilot; and

(7) A proficiency check for an additional category or class and make and model privilege for a sport pilot certificate or flight instructor certificate with a sport pilot rating.

(b) A sport- pilot instructor may for compensation tow an ultralight or a light-sport aircraft if:

(1) The instructor meets the requirements of paragraph 61.69(a)(2) through 61.69 (a)(6).

(c) A sport-pilot instructor may for compensation demonstrate an aircraft in flight to a prospective buyer."

Justification: The towing of hang gliders is currently done on a regular basis on an exemption issued to the United States Hang Glider Association. This proposed rule should provide at least one means to allow the continuation of this activity under the proposed sport pilot and light-sport aircraft proposals. EAA does not believe that allowing an instructor to tow ultralights and light-sport aircraft completely solves the need to have an appropriate method for current ultralight training aircraft to be used as towing aircraft by sport pilots, but it does provide one method to address this need in the industry.

With regard to demonstrating aircraft to prospective pilots, current ultralight dealers do this on a regular basis as ultralight instructors. Because sport pilot instructors are authorized to provide flight instruction for hire in light-sport aircraft, it would seem appropriate and consistent with current practices to allow a sport pilot instructor to demonstrate aircraft to a prospective buyer for compensation as has been the practice for ultralight instructors to date. See comments to Section 75.

Revise Section 135 by removing paragraph (c). This requirement is covered by the proposed revision to Section 125.

Revise Section 135 by removing paragraph (e). This requirement is covered under our discussion in Section 35.

Revise Section 139 to fix an apparent editorial mistake as follows:
"No. If you hold a flight instructor certificate with a sport pilot rating, you may *not* give yourself an endorsement, except for additional make and model privileges for any certificate, privilege, flight review, authorization, practical test, knowledge test, or proficiency check required by 14 CFR Part 61."

Justification: This is an apparent editorial mistake.

Revise Section 153(f) to clarify that the instructor is taking the sport pilot instructor knowledge and practical test rather than the "sport pilot" tests by revising as:

Section 153(f) "You must pass the knowledge test and practical test for a sport pilot *instructor* certificate."

Justification: EAA believes this was a typographical omission during the drafting of the proposal.

CONCLUSION

EAA appreciates the opportunity to comment on this significant proposal and is available to assist the Agency in its successful implementation.

Sincerely,

Tom Poberezny
President

cc: FAA Administrator Garvey, AOA-1
FAA Associate Administrator for Regulation and Certification, AVR-1